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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,946	12/29/2003	Edward John Giblin	C6664(C)	7892

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EXAMINER

PATTERSON, MARC A

ART UNIT PAPER NUMBER

1772

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/748,946

Applicant(s)

GIBLIN ET AL.

Examiner

Marc A. Patterson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11, 14-17, 20, 21 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11, 14-17, 20, 21 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

WITHDRAWN REJECTIONS

1. The 35 U.S.C. 102(b) rejection of Claims 11, 14 – 17, 20 – 21 and 23 as being anticipated by Takahashi et al (U.S. Patent No. 6,329,465 B1), of record on page 2 of the previous Action, is withdrawn.

NEW REJECTIONS

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11, 14 – 17, 20 – 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al (U.S. Patent No. 6,329,465 B1).

With regard to Claims 11, 17 and 20 – 21, Takahashi et al disclose a multi – layer bottle (column 70, line 12), therefore having an outer layer, middle layer and inner layer; each layer of the bottle comprising 60% by weight of a polyethylene polymer (column 25, lines 3 – 9) which is a metallocene polyethylene (obtained by use of catalysts containing metallocene; column 1, lines 44 – 47 and 64 – 67) blended with a linear polyethylene which is a homopolymer (column 88, lines 61 – 65) or high density polyethylene (column 88, lines 66 – 67; column 89, lines 1 – 8); Takahashi et al disclose a polyethylene density ranging from 0.880 to 0.970 g/cm³ (column 9, lines 42 – 45), and Takahashi et al therefore disclose a metallocene polyethylene with a density from 0.91 to

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0.95 g/cm³; the polymer, and therefore the bottle and the wall of the bottle, has a transmittance of 92% (column 37, lines 56 – 60) and is therefore transparent; the bottle is recyclable (recycling materials are added; column 51, lines 4 – 19) and Takahashi et al therefore disclose a bottle in which all of the layers comprise 100% recycled resin, or comprise virgin resin, therefore virgin high density polyethylene, blended with recycled resin. Takahashi fails to disclose a polyethylene homopolymer with a density greater than 0.957 g/cm³. However, Takahashi discloses a polyethylene having a density of 0.880 to 0.970 g/cm³, as stated above, and therefore discloses a bottle having a density of 0.880 to 0.970 g/cm³, and therefore teaches the selection of the density of the polyethylene homopolymer to obtain the desired density of the bottle.

Therefore, one of ordinary skill in the art would have recognized the utility of varying the density of the polyethylene homopolymer to obtain the desired density of the bottle. Therefore, the density of the bottle would be readily determined by through routine optimization of the density of the polyethylene homopolymer by one having ordinary skill in the art depending on the desired use of the end product as taught by Takahashi et al.

It therefore would be obvious for one of ordinary skill in the art to vary the density of the polyethylene homopolymer in order to obtain the desired density of the bottle, since the density of the bottle would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Takahashi et al.

With regard to Claims 14 – 16, the polymer disclosed by Takahashi et al comprises polypropylene (column 88, lines 66 – 67; column 89, lines 1 – 8) and

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comprises 60% by weight of a polyethylene polymer and 1% low density polyethylene (column 25, lines 3 – 9) and therefore comprises 39% by weight polypropylene.

With regard to Claim 23, Takahashi et al disclose a bottle having multiple layers, as discussed above, and therefore disclose a bottle having five layers, therefore having an inner and outer layer that each comprise 20% of the total thickness of the wall of the bottle.

ANSWERS TO APPLICANT'S ARGUMENTS

4. Applicant's arguments regarding the 35 U.S.C. 102(b) rejection of Claims 11, 14 – 17, 20 – 21 and 23 as being anticipated by Takahashi et al (U.S. Patent No. 6,329,465 B1), of record in the previous Action, have been considered but have not been found to be persuasive for the reasons set forth below.

Applicant argues, on page 9 of the remarks dated August 17, 2005, that although Takahashi et al disclose a film having good transparency, a bottle having good light transparency is not disclosed by Takahashi et al; films, Applicant argues, are not walls of bottles.

However, Takahashi et al clearly disclose the making of bottles by the molding of films (column 70, lines 40 – 44); Takahashi et al therefore disclose a film which is the wall of a bottle.

Applicant also argues on page 9 that Takahashi et al disclose a composition having good heat resistance or transparency, and that not every section of Takahashi et al disclose good transparency.

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However, because Takahashi et al disclose a composition having good transparency, Takahashi et al also disclose the molding of the composition into a bottle having good transparency.

Applicant also argues, on page 10, that Takahashi et al do not disclose a bottle having recycled resin in an amount of at least 25% in the middle layer.

However, because Takahashi et al disclose a bottle having a resin which is comprises recycling materials, as stated above, Takahashi et al disclose a bottle which is entirely recyclable; Takahashi et al therefore disclose a bottle which comprises 100% recycled resin in the middle layer.

Applicant also argues, on page 10, that Takahashi et al do not disclose the claimed concentration of polypropylene, or that it must be in the outer layer.

However, as stated above, Takahashi et al disclose the claimed concentration of polypropylene; furthermore, the layers of the disclosed bottle have the same composition, as stated above.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497. The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marc Patterson 10/31/05

Marc A. Patterson, PhD.

Examiner

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